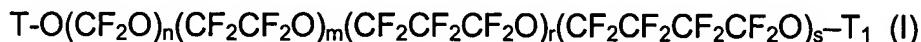


## **AMENDMENTS TO THE CLAIMS:**

Please amend the claims as follows:

1.(Original) Linear perfluoropolyethers having the following structure formula:



wherein:

- T and  $T_1$ , equal to or different from each other are selected from  $CF_3-$ ,  $CF_3-$   
 $CF_2-$ ,  $C_3F_7-$ ,  $C_4F_9-$ ,  $CICF_2-$ ,  $CICF_2CF_2-$ ;
- n, m, r, s are integers such that the number average molecular weight is comprised between 700 and 100,000, preferably between 1,500 and 20,000;
- the m/n ratio is comprised between 2 and 20, preferably between 2 and 10;
- the  $(r+s)/(n+m+r+s)$  ratio is comprised between 0.05 and 0.2, preferably between 0.07 and 0.2;
- the  $n/(n+m+r+s)$  ratio ranges from 0.05 to 0.40, preferably from 0.1 to 0.3;

wherein the perfluoroxyalkylene units are statistically distributed along the polymeric chain.

2.(Original) Perfluoropolyethers according to claim 1, wherein the number average molecular weight is in the range 1,500 - 20,000 (viscosity between 10 cSt and 1,000 cSt at 20°C).

3.(Currently Amended) Perfluoropolyethers according to ~~claims 1-2~~claim 1 additionally with thermal stabilizers of perfluoropolyethers.

4.(Original) Perfluoropolyethers according to claim 3, wherein the thermal stabilizers are selected from perfluoropolyethers having functionality of the phosphines,

phosphates, phosphazenes, benzothiazoles, triazines, amines, substituted amines type, nitroderivative compounds

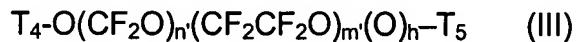
5.(Currently Amended) Perfluoropolyethers according to ~~claims 1-4~~claim 1, wherein T and T<sub>1</sub>, besides the indicated meanings, are also -(CF<sub>2</sub>)<sub>z</sub>COF wherein z = 0, 1, 2, 3, and wherein the total moles of the end groups comprise from 0.5% by moles to 50% by moles of -COF groups.

6.(Currently Amended) Perfluoropolyethers according to ~~claims 1-5~~claim 1, wherein the COF end groups are transformed into other functional groups.

7.(Original) Perfluoropolyethers according to claim 6, wherein the functional end groups are selected from COOH, COOR (with R=CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, C<sub>3</sub>H<sub>7</sub>), aminic, alcoholic, aldehydic, salts, nitrilic, amidic functional groups.

8.(Original) A process for the preparation of the formula (I) perfluoropolyethers according to claim 1 comprising the following steps:

- a) preparation of the compound of claim 5 by addition, under stirring, of the formula (III) peroxidic compound:



wherein T<sub>4</sub>, T<sub>5</sub>, equal to or different from each other, are selected from CF<sub>3</sub>-, CF<sub>3</sub>CF<sub>2</sub>-, -COF, -CF<sub>2</sub>COF, XCF<sub>2</sub>-, XCF<sub>2</sub>CF<sub>2</sub>- wherein X = Cl, -OR"<sub>f</sub> wherein R"<sub>f</sub> is a C<sub>1</sub>-C<sub>3</sub> perfluoroalkyl,

having a n'/(n'+m') ratio from 0.05 to 0.25 and a h/(n'+m') ratio from 0.1 to 0.3 and a PO (peroxidic content) content, defined as grams of active oxygen/100 grams of compound, from 1.8 to 4, preferably from 2 to 3.8,

to a reaction medium formed by a perfluoropolyether oil, contained in a reactor, maintained at a constant temperature in the range 150°C-250°C, preferably 230-250°C, so as to have a PO of the reaction mixture between 0 and 0.5, preferably between 0 and 0.2, by continuously extracting the reaction mixture and heating the collected fractions not containing the initial perfluoropolyether oil at temperatures comprised between 220 and 250°C until complete removal of the residual peroxidic groups, obtaining the claim 5 compound;

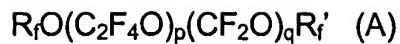
- b) fluorination of the compound obtained in a) with the obtainment of the formula (I) compound.

9.(Original) A process according to claim 8, wherein the step a) is carried out by using as reaction medium, instead of a perfluoropolyether oil, the perfluoropolyether of claim 5.

10.(Currently Amended) A process according to claims ~~8-9~~claim 8, wherein in step a) the compound (III) is added to the preheated reaction medium, with a flow-rate comprised between 0.1 and 1.3 kg/h per Kg of reaction medium.

11.(Currently Amended) A process according to claims ~~8-10~~claim 8, wherein after step b) the compound (I) is subjected to molecular distillation to separate fractions having a different molecular weight.

12.(Currently Amended) A process according to claims ~~8-11~~claim 8, wherein the perfluoropolyether oil to be used in the preparation of the compounds of formula (I) and of claim 5 is a perfluoropolyether of formula (A)



with  $R_f$  and  $R_f'$  equal to or different from each other selected from  $CF_3-$ ,  $C_2F_5-$ ,  $CICF_2-$ ,  $CICF_2CF_2-$ ;  $p$  and  $q$  are variable indexes, whose sum gives the number average molecular weight and whose  $p/q$  ratio ranges from 0.1 to 10.

13.(Currently Amended) Use of the perfluoropolyethers of ~~claims 1-4~~claim 1 as lubricants.

14.(Currently Amended) Use of the perfluoropolyethers of ~~claims 5-7~~claim 5 to confer hydro- and oil-repellence to surfaces.